

through many sections with alkali and other waters toxic to fishes raised in a different brand. Things got crucial near Las Cruces, New Mexico, at the edge of the great gypsum desert of the White Sands. But by luck the proprietor of an auto court where they stayed one night had the deepest artesian well in that part of the state—with pure water. All things considered, the Curator of the Steinhart Aquarium, Dr. Earl S. Herald, feels his men did very well to complete the entire transaction with the loss of but one fish and one snake.

San Francisco aquarium dealers please note: Sailfin mollies retail here for 75c apiece; down there in Texas they have so many they don't even bother to exhibit them. They do keep them in tanks—only to catch the young to use as feed for the seahorses!

#### HELLBENDERS AND RAISERS

STEINHART AQUARIUM is the liveliest part of the Academy at any time. Lately the place seems to have run a little wild. It started, probably, with putting in hell-benders, those famous giant (18-inch) aquatic salamanders from the Ohio Valley and points east, who wear their lungs outside and rotate constantly to breathe. These voracious creatures must have put ideas into the head of a puny 15-inch baby alligator. The nipper suddenly went berserk and all but ripped a leg off one of his pals before the riot squad got there to quell things. Meanwhile over in the right front Matson tank some brand new spiny tropical lobsters—just in from Honolulu in their beautifully colored armor plate—were found to have eaten two out of the three highly prized porcupine fish from Miami. The survivor was rescued in the nick of time and is now in another tank, with the gentle seahorses. It's a live show at Steinhart.

#### WEATHER ON DISPLAY

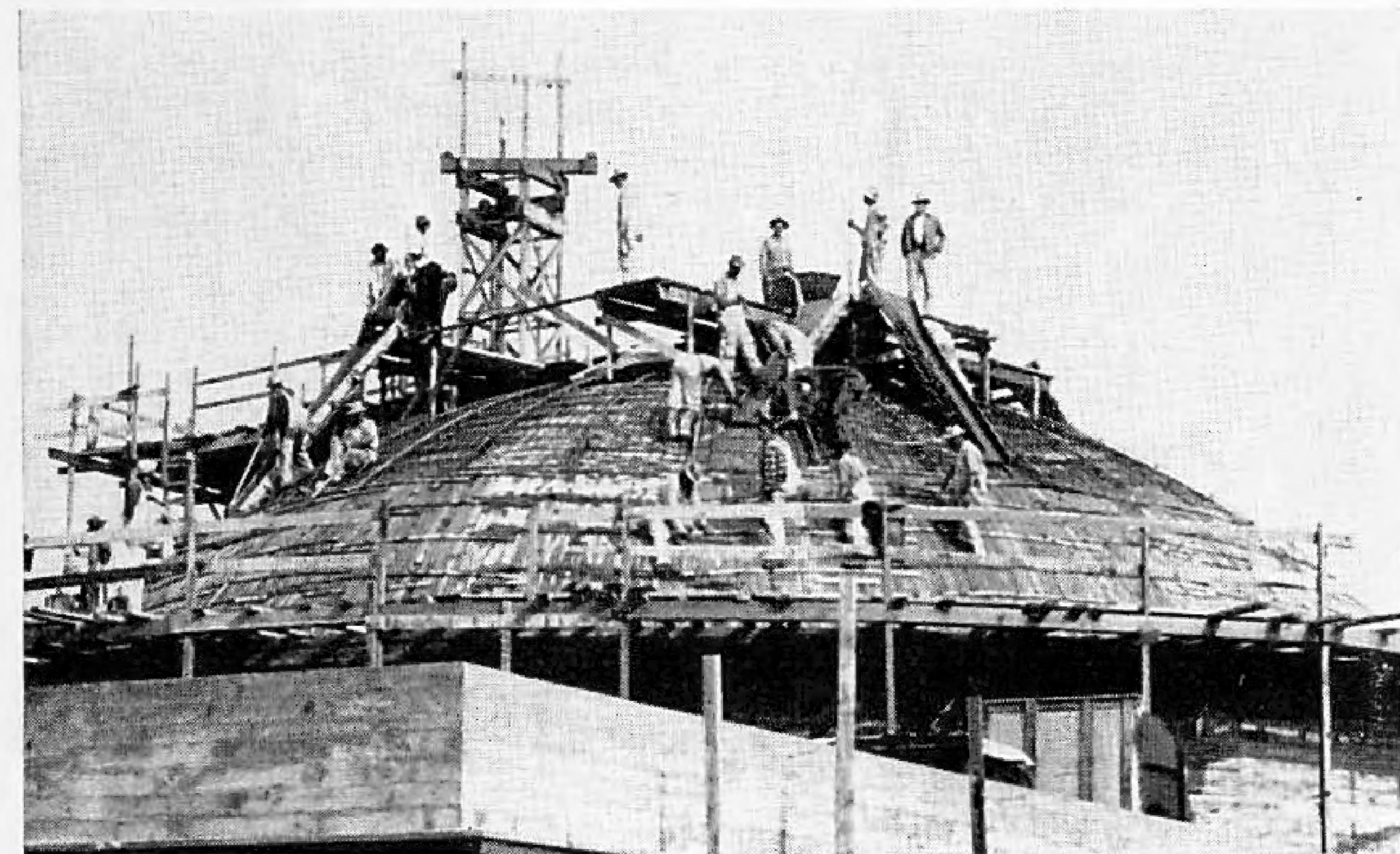
VISITORS to North American Hall are showing keen interest in three curious wall cases labeled "Radar Weather Trainer," "The Atmosphere," and "The Cold Front." This temporary display is not an attempt to "do something" about the weather. They are part of a series of training devices, built by Airology, New York, designed primarily for the instruction of pilots. But with their realistic three dimensions and electrical lighting effects they can help all of us and our kids understand how weather works.

The Academy is hoping that some generous and weather-minded friend will enable us, through purchase, to make this interesting and instructive display a permanent feature of our new Hall of Astronomy, now under construction along with the Morrison Planetarium.

# ACADEMY NEWS LETTER

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Photograph by F. L. Rogers

#### THE MORRISON PLANETARIUM

Pouring the concrete dome—view from the roof of the Steinhart Aquarium

(See page 2)

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## December Announcement

THE REGULAR DECEMBER MEETING of the California Academy of Sciences will be held in North American Hall, West Wing of the Academy buildings in Golden Gate Park, on Wednesday evening, December 7, 1949, at 8 o'clock. Professor George E. MacGinitie will give an illustrated lecture entitled

### BIOLOGY OF THE ARCTIC OCEAN

During World War II and especially in the years since its end, the United States Government and many American scientists have directed a good deal of attention to the northern fringe of the continent bordering the Arctic Ocean. Work in that region may not entail the spectacular in subpolar travel and living such as is associated with expeditions to the Antarctic; nevertheless, most of the Arctic lands and waters have been given as little intensive study as the bulk of the southernmost continent has.

A base from which to explore Arctic shores and waters, the Arctic Research Laboratory has been established at Point Barrow, Alaska. Dr. MacGinitie is Scientific Director. On "stateside leave," he will bring to our December meeting many Kodachrome pictures of the Point Barrow region. His lecture title may be taken broadly: besides natural history, there will be much about Eskimo life, for instance, and some of the misadventures of exploring the Arctic Ocean in a small boat with a native crew of two.

Professor and Mrs. MacGinitie are co-authors of the recently published *Natural History of Marine Animals* (McGraw-Hill), a textbook in the field in which they are specialists. The MacGinities settled this summer for a two-year stay at the Arctic Research Laboratory, where their chief work will be a survey of the marine animals of the Point Barrow region.

The public is cordially invited.

### DOME'S DAY

LAST MARCH the News Letter ran a story on the beginning of excavation for the new Hall of Science and the Morrison Planetarium. A lot of building has gone on and up since then. At this moment of writing, in fact, the editor's left eye is witnessing from his window the pouring of the Planetarium's concrete dome.

Before this summer, if the editor had stepped out his window—African Hall, top floor—it would have been to end it all. Now he steps out onto the roof of the new auditorium, through the steel frame of the Department of Birds and Mammals' new quarters, and comes face to face with the big 16-sided base of the Planetarium

dome. About 30 feet overhead a catwalk extends from the construction tower to the top of the dome's wooden form; a double line of the familiar two-wheeled "barrows" is making countless round trips from the concrete lift in the tower to the pouring chutes slanting down from the summit of the dome. The whole thing makes a fine silhouette on the bright sky.

For many weeks the Planetarium walls stood open like a big empty barrel. Then a maze of scantling began to rise from the main floor level, looking like a huge "Jungle Gym," until it emerged from the circular opening, out and up to give the rough outline of the dome. Great wooden arcs then capped the forest of uprights to complete the shape, were planked over—and there stood the inside form of the Planetarium's outer shell. This was reticulated with steel reinforcing rods wired together, and an outer form was built part way up. The six-inch space between inner form and partial outer form is now receiving "mud," as the workmen call the fluid mix; on the lesser slope above, to the top, pouring will be in the open, with guides for the six-inch thickness. When forms are stripped away, there will stand the concrete shell, like the big end of a super-Roc egg (no pun intended), free of interior support, its summit 66 feet above ground level, 43 feet above the main floor. From it, inside, will hang the inner hemisphere of steel (radius 32.5 feet), which will be the actual projection "screen" for the planetarium instrument at the hub of the circle of seats.

### FISH SWAP

OUTDOING the fishermen who get together to swap yarns about fish that got away, two well-known aquariums recently got together to swap fish. One was our own Steinhart, of course; the other, the aquarium of the San Antonio Zoological Society.

Making the longest trip by truck carrying fish the Steinhart Aquarium has ever attempted, Collector Don Simpson and Biologist Maury Rakowicz drove to Texas by way of Hermosa Beach, California. It was a sort of three-way deal, involving Hermosa's Marineland as well. Our collecting truck carried eight Garibaldis, eight leopard sharks, and one horned shark to San Antonio, and five Honolulu hermit crabs to Hermosa. At Marineland they picked up three moray eels for San Antonio. From San Antonio's Brackenridge Park Don and Maury brought back to Golden Gate Park the following:

Two alligator gars; 3 longnose gars; 3 shortnose gars; 4 quillbacks; 5 yellow bass (much like our striped bass); 2 redhorse suckers; 2 yellow catfish; 1 American (fresh water) eel; 9 sailfin mollies. Besides the fish they brought 2 Sonoran king snakes, 1 patchnose snake, 1 Mississippi water snake, and started with 1 gray rat snake who either ditched the expedition en route or arrived inside one of the other snakes (anyway he didn't show up for roll call at the end of the trip).

Salt water fishes went to San Antonio; fresh water fishes came to us, most of which have not been exhibited here for many years. For the outbound trip a special filtering device had to be built and installed in our truck—without it the salt water fishes could not have been carried the 1,800 sealess miles to Texas. The moray eels got their picture in the San Antonio papers; the gars made quite a stir here. Nearly the largest fish we now have, and by far the meanest, they ripped several nets to shreds being transferred from the truck to an aquarium tank.

Changing fresh water on the way back was a problem, too. The party came